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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,064	12/08/2004	Axel Pfeffer	OT-4995	1608

7590

10/11/2006

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EXAMINER
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MCCALL, ERIC SCOTT

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/501,064

**Applicant(s)**

PFEFFER, AXEL

**Examiner**

Eric S. McCall

**Art Unit**

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **BRAKE LINING MONITORING DEVICE AND METHOD**

### **FINAL OFFICE ACTION**

In response to the Applicant's amendment dated Aug. 02, 2006.

### **DRAWINGS**

In view of the Applicant's amendments, all of the objections to the drawings as set forth in the previous office action (March 02, 2006) have been overcome.

### **SPECIFICATION**

In view of the Applicant's amendments, the objection to the specification as set forth in the previous office action (March 02, 2006) has been overcome.

**DECLARATION**

In view of the Applicant's new declaration and application data sheet, the objection to the declaration as set forth in the previous office action (March 02, 2006) has been overcome.

**CLAIMS**

**Objections**

The objection to claims 1-13 as set forth in the previous office action has been withdrawn.

**35 U.S.C. § 112**

In view of the Applicant's amendments, the rejection of claims 1-4, 12, and 13 under 35 U.S.C. 112, second paragraph, as set forth in the previous office action (March 02, 2006) has been overcome.

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Paielli (6,384,721).

With respect to claim 1, Paielli sets forth a method of monitoring functionability of a brake lining, comprising the following steps:

measuring a value (ie. capacitance) that characterizes a dielectric constant of a lining material (abstract);

inherently comparing the measured value (ie. measured capacitance) with a reference value (ie. acceptable capacitance for a lining material) for the lining material; and

determining the functionability when the measured value is within a specific tolerance range (col. 3, lines 30+ and col. 4, lines 55+).

With respect to claim 2, Paielli suggests that the measured value is determined by a static capacitance measurement (via the conductors 24 & 26).

With respect to claim 4, Paielli sets forth at least two conductors (24 & 26) located in the lining material.

With respect to claim 5, as set forth above, Paielli clearly sets forth the claimed subject matter thereof.

With respect to claim 6, Paielli sets forth that the conductors (24 & 26) are essentially arranged in a plane which is essentially parallel to the braking surface of the brake lining as claimed (Fig. 1).

With respect to claim 7, the conductors (24 & 26) of Paielli are interpreted as being made of foil material as claimed.

With respect to claim 8, Paielli set forth that the conductors (24 & 26) are imbedded in the brake lining material so that the brake lining material is present on both sides of the conductors in the wear direction of the brake lining (Fig. 1).

With respect to claims 9 and 10, as set forth above, Paielli clearly sets forth the claimed subject matter thereof.

With respect to claim 11, Paielli suggests that the brake lining monitoring device comprises a resistance which, in conjunction with the capacitance emitted by the at least two conductors, forms an oscillating circuit (Figs. 8-10).

#### *Response To Arguments*

The Applicant's arguments have been considered but have not been found to be persuasive. Specifically, the Applicant has argued that the prior art of Paielli does not provide a sensor in the brake lining. The Examiner disagrees. Notwithstanding that none of the Applicant's independent claims require the placement of a sensor in the brake lining, the sensor (see 22, 24, & 26 of Fig. 1) of Paielli is placed in the brake lining (42). The fact that the sensor of Paielli is to wear at the same rate as the brake pad (ie. lining) further suggests that the sensor is part of the brake lining.

Paielli discloses sensor plates (24 and 26) as being in the sensor body (22). The sensor body is shown in the brake lining material. Thus, the sensor plates are in the brake lining material.

The Applicant has provided no further arguments.

**CONCLUSION**

**THIS ACTION IS MADE FINAL.** The Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

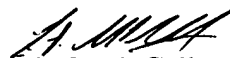
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Eric S. McCall  
Primary Examiner  
Art Unit 2855  
Oct. 04, 2006